

Application Serial No: 10/848756
Responsive to the Office Action mailed on: February 13, 2007

REMARKS

This is in response to the final Office Action mailed on February 13, 2007.
Claims 1, 2, 4, 6, 12 and 24 are pending.

103(a) Rejections:

Claims 1, 2, 4, 6, 12 and 24 are rejected as being unpatentable over Choi (US Patent No. 5,764,621) in view of Tanaka (JP Patent Publication No. 10-112066). The rejection also appears to assert that Satoh (US Patent No. 5,428,597) teaches or suggests certain features of claims 1, 2, 4, 6, 12 and 24. This rejection is traversed.

Claim 1 is directed to an optical information recording medium comprising a plurality of information layers from which information signals can be reproduced by one-sided irradiation of light beams that requires, among other features, that positions of the sector addresses of the respective information layers coincide in both the circumferential direction and a radial direction.

The combination of Choi, Tanaka and Satoh does not teach or suggest these features. The rejection relies on Tanaka and Satoh for teaching that positions of the sector addresses of the respective information layers coincide in both the circumferential direction and a radial direction. The rejection asserts that Tanaka teaches the concept of the positions of the sector addresses of the respective information layers coinciding in both the circumferential direction and the radial direction even though Figure 1 as shown does not teach or suggest these features. However, this is contrary to the explicit teaching of Tanaka. Tanaka is directed to an information recording medium that teaches a first layer (A1) with a 512-byte format sector size, a second layer (B1) with a 1024-byte format sector size and a third layer (C1) with a 2048-byte format sector size (see paragraphs [0007-0008] on pages 1-2 and Figure 1). Thus, even if the first positions of the sector addresses (SMs) coincide, the next positions (SMs) cannot coincide. Moreover, nowhere does Tanaka teach or suggest the concept of positions of the sector addresses of the respective information layers coinciding in both the circumferential direction and the radial direction or the concept of doing so. Tanaka explicitly teaches the concept of increasing the storage capacity of multilayer information recording medium where each layer is recorded in a different format (see paragraph [0005]).

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Furthermore, Satoh does not overcome the deficiencies of Tanaka. Satoh is directed to multi-layered optical disk with track and layer identification. The rejection points to Figure 3 for showing the features of the positions of the sector addresses of the respective information layers coinciding in both the circumferential direction and the radial direction. Figure 3 of Satoh is a vertical cross-sectional view of a multi-layered optical disk and Figure 4 of Satoh is a plan view of the optical disk of Figure 3 (see column 3, lines 18-21). The rejection interprets the identification sections (IDa and IDb) of the tracks (6a and 6b) shown in Figures 3 and 4 as the sector addresses of claim 1. However, tracks (6a and 6b) are shifted against each other in the radial direction by half of a track pitch (Pt.) which in turn shifts identification sections (IDa and IDb) in the radial direction by a half of a track pitch (Pt.) (see column 3, lines 49-57). Accordingly, positions of identification sections (IDa and IDb) cannot coincide in the radial direction as would be required by claim 1. Moreover, Figure 3 of Satoh shows the upper layer with identification section (IDa) in solid lines and the lower layer with identification section (IDb) in dotted lines to emphasize the phase shift in the radial direction. For at least these reasons claim 1 is not suggested by the combination of Choi, Tanaka and Satoh and should be allowed. Claim 2 depends from claim 1 and should be allowed for at least the same reasons.

Claim 4 is directed to an optical information recording medium comprising a plurality of information layers from which information signals can be reproduced by one-sided irradiation of light beams which requires, among other features, a sector position identifier that is located at a radial position other than the data area and the sector address in each information layer to identify the position of each information layer in the circumferential direction and that positions of the sector addresses of the respective information layers coincide in the circumferential direction.

The combination of Choi, Tanaka and Satoh does not teach or suggest these features. Similar to the rejection of claim 1, the rejection relies on Tanaka and Satoh for teaching that positions of the sector addresses of the respective information layers coincide in both the circumferential direction and a radial direction. Accordingly, the rejection asserts that both Tanaka and Satoh teach a sector position identifier that is located at a radial position other than the data area and the sector address in each

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information layer to identify the position of each information layer in the circumferential direction and the positions of the sector addresses of the respective information layers coincide in the circumferential direction. For at least the same reasons discussed above, with respect to claim 1, Tanaka and Satoh do not teach these features. Accordingly, claim 4 is not suggested by the combination of Choi, Tanaka and Satoh and should be allowed. Claims 6 and 24 depend from claim 4 and should be allowed for at least the same reasons.

Claim 12 is directed to an optical information recording medium comprising a plurality of information layers on/from which information signals can be recorded/reproduced by one-sided irradiation of light beams that requires, among other features, that each information layer have a sector address comprising a recording mark formed by irradiation of light beams and that the positions of the sector addresses of the respective information layers coincide in a circumferential direction.

The combination of Choi, Tanaka and Satoh does not teach or suggest these features. Similar to the rejection of claims 1 and 4, the rejection relies on Tanaka and Satoh for teaching that positions of the sector addresses of the respective information layers coincide in both the circumferential direction and a radial direction. Accordingly, the rejection asserts that both Tanaka and Satoh teach that each information layer have a sector address comprising a recording mark formed by irradiation of light beams and that the positions of the sector addresses of the respective information layers coincide in a circumferential direction. For at least the same reasons discussed above, with respect to claims 1 and 4, Tanaka and Satoh do not teach these features. Accordingly, claim 12 is not suggested by the combination of Choi, Tanaka and Satoh and should be allowed.

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Conclusion:

Applicants respectfully assert claims 1, 2, 4, 6, 12 and 24 are in condition for allowance. If a telephone conference would be helpful in resolving any issues concerning this communication, please contact Applicants' primary attorney-of record, Douglas P. Mueller (Reg. No. 30,300), at (612) 455-3804.

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PATENT TRADEMARK OFFICE

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